

CLAIMS

What is claimed is:

- 1 1. A system comprising:
2 a personal digital assistant including a memory defining a database, a
3 microprocessor coupled to the memory, an input/output device coupled to the
4 microprocessor, a wireless modem coupled to the microprocessor, and an output
5 port coupled to the microprocessor, the personal digital assistant being
6 configured to provide data to the output port indicating a predetermined event
7 has occurred in response to occurrence of the predetermined event; and
8 actuator circuitry including a digital to analog converter having a
9 digital input coupled to the output port, having an analog output, and being
10 configured to provide an analog signal in response to the data being applied to
11 the digital input, and the actuator circuitry including a conductor configured to
12 be coupled between a vehicle's horn and the analog output of the digital to
13 analog converter, the actuator circuitry being configured to effect honking of the
14 horn in response to the data being provided to the digital input of the digital to
15 analog converter.
- 1 2. A system in accordance with claim 1 wherein the personal
2 digital assistant includes an e-mail client, and is configured to provide data to
3 the output port indicating that an e-mail has been received in response to an
4 e-mail being received via the wireless modem.
- 1 3. A system in accordance with claim 1 and further including a
2 battery charger having a power input plug connector configured to be coupled to
3 a vehicle cigarette lighter power port and having an output connector, wherein
4 the personal digital assistant includes a rechargeable battery and has a
5 connector port configured to be coupled to the output connector of the battery
6 charger.

1 4. A system in accordance with claim 1 wherein the actuator
2 circuitry is configured to effect a pattern of discrete spaced apart honks in
3 response to the data being provided to the digital input of the digital to analog
4 converter.

1 5. A system in accordance with claim 4 wherein the actuator
2 circuitry is configured to generate different patterns of honks for different
3 predetermined events to distinguish between different types of predetermined
4 events.

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1 6. A system in accordance with claim 3 wherein the actuator
2 circuitry is coupled to the power input plug connector, to be powered by the
3 vehicle.

1 7. A system in accordance with claim 3 wherein the battery
2 charger includes charger circuitry, and wherein the system further comprises a
3 common housing supporting the digital to analog circuitry and the charger
4 circuitry.

1 8. A system in accordance with claim 1 wherein the personal
2 digital assistant includes mobile phone circuitry, including ringer circuitry
3 configured to provide a signal to actuate ringing when a phone call initiation
4 attempt is being received, wherein the personal digital assistant is configured to
5 provide data to the output port indicating that a phone call initiation attempt is
6 being received, in response to the ringer circuitry indicating that a phone call
7 initiation attempt is being received.

1 9. A personal digital assistant-vehicle interface system, for use
2 with a personal digital assistant including a memory defining a database, a
3 microprocessor coupled to the memory, an input/output device coupled to the
4 microprocessor, and a serial output port coupled to the microprocessor, the

5 personal digital assistant being configured to provide data to the output port
6 indicating a predetermined event has occurred in response to occurrence of the
7 predetermined event, the interface system comprising:

8 actuator circuitry including a digital to analog converter having a
9 digital input configured to be coupled to the serial output port of the personal
10 digital assistant, having an analog output, and being configured to provide an
11 analog signal in response to the serial data being applied to the digital input, the
12 analog output being configured to be coupled to an electrically actuated vehicle
13 component that, when actuated, is audible or visible, the actuator circuitry being
14 configured to effect actuation of the vehicle component in response to the data
15 being provided to the digital input of the digital to analog converter.

10. A system in accordance with claim 9 and further including a
1 battery charger having a power input plug connector configured to be coupled to
2 a vehicle cigarette lighter power port and having an output connector configured
3 to be coupled to the battery charger connector of the personal digital assistant,
4 the system further including a housing enclosing both the battery charger and
5 the actuator circuitry.

11. A system in accordance with claim 10 and further comprising a
2 personal digital assistant including a memory defining a database, a
3 microprocessor coupled to the memory, an input/output device coupled to the
4 microprocessor, and an output port coupled to the microprocessor, the personal
5 digital assistant being configured to provide data to the output port indicating a
6 predetermined event has occurred in response to occurrence of the
7 predetermined event.

12. A system in accordance with claim 9 wherein the actuator
2 circuitry is configured to effect a pattern of actuations of the vehicle component
3 in response to the data being provided to the digital input of the digital to analog
4 converter.

5 13. A system in accordance with claim 12 wherein the actuator
6 circuitry is configured to generate different patterns of actuations for different
7 predetermined events to distinguish between different types of predetermined
8 events.

1 14. A system in accordance with claim 10 wherein the actuator
2 circuitry is coupled to the power input plug connector, to be powered by the
3 vehicle.

1 15. A system in accordance with claim 11 wherein the personal
2 digital assistant includes a wireless modem coupled to the microprocessor, and
3 includes an e-mail client, and is configured to provide data to the output port
4 indicating that an e-mail has been received in response to an e-mail being
5 received via the wireless modem.

1 16. A system in accordance with claim 11 wherein the personal
2 digital assistant includes mobile phone circuitry, including ringer circuitry
3 configured to provide a signal to actuate ringing when a phone call initiation
4 attempt is being received, wherein the personal digital assistant is configured to
5 provide data to the output port indicating that a phone call initiation attempt is
6 being received, in response to the ringer circuitry indicating that a phone call
7 initiation attempt is being received.

1 17. A method comprising:
2 providing a personal digital assistant including a memory defining a
3 database, a microprocessor coupled to the memory, an input/output device
4 coupled to the microprocessor, and an output port coupled to the
5 microprocessor;
6 configuring the personal digital assistant to provide data to the output
7 port indicating a predetermined event has occurred in response to occurrence of
8 the predetermined event;

9 converting digital data at the output port to an analog signal to
10 provide an analog signal in response to occurrence of the predetermined event;
11 and

12 using the analog signal to actuate an electrically actuated vehicle
13 component that, when actuated, is audible or visible, such that actuation of the
14 vehicle component is effected in response to occurrence of the predetermined
15 event.

1 18. A method in accordance with claim 17 wherein the vehicle
2 component is a horn.

1 19. A method in accordance with claim 17 wherein the vehicle
2 component is a light.

1 20. A method in accordance with claim 17 wherein the personal
2 digital assistant includes a rechargeable battery, the method further comprising
3 charging the battery of the personal digital assistant using power from the
4 vehicle.